AppleWorks FORUM

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Support for AppleWorks and ///EZ Pieces Users

Apple IIc Printing Problem

Dear **NAUG**,

I recently replaced the motherboard in my Apple IIc. Now AppleWorks won't print properly on my ImageWriter II. Instead, my documents print as unreadable "garbage". Could fixing my IIc affect AppleWorks?

Stephen Summers
Marquette, Michigan

[Ed: You probably have to change the settings for the printer port built into your IIc computer. You can make those changes with AppleWorks. Go to the Other Activities Menu, indicate that you want to change the standard settings in AppleWorks, and indicate that you want to "Specify information about your printer". Then choose the option that lets you change the settings for your printer and select choice #5 ("Printer codes") from the Change Printer Menu. Finally, select "Printer Interface settings" from the Printer Codes Menu and change the settings to 9600 baud, 8 data bits and 1 stop bit, and no parity. Then issue an Apple-Q to return to your document. AppleWorks will reset the settings on your motherboard the next time you print a document.]

A Hard Disk Option

Dear Cathleen,

I understand why my **NAUG** colleagues who use a lot of different programs appreciate a hard disk. But those of us who only run AppleWorks on our Apple IIGS computers can enjoy even greater speed without spending all the money required for a hard disk drive.

The trick is to put extra memory in your Apple IIGS and use the Control Panel to set aside at least 734K of RAM for a RAM disk. Then reboot your computer and use a disk utility program to copy all of AppleWorks, the AppleWorks spelling dictionaries, TimeOut accessories, TimeOut data files, and other AppleWorks enhancements onto that "disk". Finally, launch AppleWorks from the RAM disk and use the TimeOut Utilities to configure all the TimeOut applications so they look on the RAM disk for their associated data files.

You can automate the bootup process by creating a "Launch Disk" that includes ProDOS, BASIC.SYSTEM, and the following one-line STARTUP program you create in BASIC:

```
10 -/RAM5/APLWORKS.SYSTEM
```

Then press Apple-Control-Reset to boot your computer with your Launch Disk and run AppleWorks.

Leave your computer on after you load the necessary program and data files into RAM; that eliminates the need to reload AppleWorks into memory. However, you should either use a screen saver or should turn down your monitor to avoid "burning in" the phosphorus.

Jeffrey Macintyre
Boston, Massachusetts

*[Ed: Whether or not you should leave your computer on is a controversial topic. We leave **NAUG**'s six Apple II systems on all the time with excellent results. **NAUG**'s oldest computers, an Apple IIc and an Apple IIe, have been on almost continuously since we bought the systems in 1984.*

*For more information, see the article entitled "Leave Your Computer On" in the July 1987 issue of the **AppleWorks Forum** and reprinted in the **AppleWorks Handbook: Volume One**.*

TimeOut UltraMacros includes a built-in screen saver.]

AppleWorks Forum

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BASIC Programs and System 6

Dear **NAUG**,

System 6 for the Apple IIGS represents a significant advance over earlier operating systems. However, System 6 does not need (and therefore does not include) BASIC.LAUNCHER. Unfortunately, some program selectors fail unless you have BASIC.LAUNCHER in your system.

A simple work-around is to copy the file BASIC.SYSTEM into the System Folder on your boot disk and re-name the file BASIC.LAUNCHER. Then you can use your program selector and also launch BASIC programs as you did under earlier versions of GS/OS.

William Roemer
Andover, New Jersey

Member Prefers TimeOut Word Count

Dear Cathleen,

I appreciate **NAUG**'s descriptions of how to use the AppleWorks 3.0 spell checker to count the number of words in a document. However, I prefer to use TimeOut Word Count, which is the fastest and easiest way to determine the length of my documents.

NAUG members who own the popular TimeOut QuickSpell program do not need to buy any new software. Just copy TO.WORD.COUNT from your old TimeOut QuickSpell disk into your AppleWorks 3.0 TimeOut directory; the AppleWorks 2.0 version of Word Count is compatible with AppleWorks 3.0. Then you can use Word Count to get an accurate and quick estimate of the number of words in a document.

On another topic: The June issue of the ***AppleWorks Forum*** mentions a source for disk notchers. I get mine for $2.95 plus s/h from MEI/Micro Center, 1100 Steelwood Road, Columbus, Ohio 43212; (800) 634-3478. MEI/Micro Center also has the best price I can find for ImageWriter ribbons; $1.63 each in packs of six or more plus s/h.

Marvin Tubbs
Union City, Pennsylvania

Reorganizing Data Base Categories

Dear Cathleen,

Is there any way to change an AppleWorks data base file so the Insert New Record screen gives me more room to enter data? I need to enter comments for some students and the two column display only lets me enter about 25 characters in any data base category.

Clifford Powell
Walker Springs, Alabama

[Ed: AppleWorks' Single Record Layout screen controls the format of the Insert New Records screen. Follow these steps to change both screens:

1. *Display a record in Single Record Layout.*
2. *Make certain the top of the screen displays "Review/Add/ Change". If it says "Insert New Records", press the Escape Key.*
3. *Issue an Apple-L command.*
4. *Use the Arrow Keys to put the cursor on the category you want to move.*
5. *Hold down the Open Apple Key and use the Arrow Keys to move the category to a new location.*
6. *Repeat steps #4 and #5 for each category you want to move.*
7. *When you are done, press the Escape Key.*
8. *Select "Left to right, top to bottom" in response to the "Cursor direction when return is pressed" prompt.*

Claris Corporation Answers Your AppleWorks Questions

by Claris Corporation

Q: I have one 3.5-inch and one 5.25-inch disk drive connected to my Apple IIe computer. Why does AppleWorks always "think" I have two 5.25-inch disk drives on my system?

A: The Apple II computer was one of the first to use a low-cost floppy disk drive. Unlike the newer 3.5-inch disk drive interface card, the 5.25-inch interface card cannot detect whether you have one or two drives connected to the card. Instead, the card always "reports" that you have two drives connected to your system, and AppleWorks lists both drives on its menus.

Q: How can I use AppleWorks to compute the natural and base 10 log of a number?

A: AppleWorks 3.0 and AppleWorks GS offer natural and base 10 log functions. In AppleWorks 3.0, the expressions @LN(number) and @LOG(number) compute the natural and base 10 logarithm of the number. In AppleWorks GS, the functions are Ln(number) and Log(number) respectively.

AppleWorks 1.x and 2.x users can compute the natural log of a number with the formula `((number^.00000001)-1/.00000001)`. To convert the natural log to the base 10 log, divide the result of that equation by 2.3025851.

Q: My AppleWorks 3.0 spelling dictionary at home recognizes more words than the spelling dictionary at school. For example, my Main Dictionary at home recognizes "forward", but my copy of AppleWorks at school would not recognize that word until I added it to the Custom Dictionary. What can cause this problem?

A: Early versions of the 5.25-inch AppleWorks 3.0 spelling dictionary did not include fifty words starting with "for" that we added to later versions of the program. The easiest way to correct the problem is to add those words to your custom dictionary as you work with AppleWorks.

Also note that the complete spelling dictionary does not fit on a 5.25-inch floppy disk; the dictionary on the 3.5-inch disk is almost 35% larger than the 5.25-inch disk version of that dictionary. If you run AppleWorks on a hard disk, make certain that you copy the 3.5-inch disk version of the dictionary into your AppleWorks directory, not the 5.25-inch disk version of the dictionary. You have the larger dictionary if your file requires more than 127K of disk space.

Q: I use DIF files to transfer data from my AppleWorks spreadsheet into my stand-alone financial management program. The transfer works out fine when I use early versions of AppleWorks, but my finance program won't accept the DIF files I create with AppleWorks 3.0. What is the problem?

A: AppleWorks 3.0 creates faulty DIF files on Apple IIGS computers. Our research suggests that the program inserts a Tab character in the DIF file where there should be a Return character following an empty cell.

You can fix the problem by loading the DIF file into AppleWorks as a text file and replacing any tabs in the file with returns. Then "print" the file as an ASCII file.

Some text editors and AppleWorks enhancements let you search for and replace tabs; you have to perform that task manually in AppleWorks.

This problem only occurs on Apple IIGS computers.

How to Enhance Your Documents with MouseText – Part One

by F. David Stephansky and Warren S. Williams

Robert Lissner, the creator of AppleWorks, never envisioned using the program as a graphics application. However, the flexibility he built into AppleWorks makes it easy to use the 32 graphic "MouseText" characters built into the ImageWriter II printer to add simple graphics to your documents.

This is the first of two articles that will teach you how to use those MouseText characters to produce attractive documents like the example in *Figure 1*. This month you will learn how to include MouseText in the documents you print. Next month's article will describe how to add MouseText to documents on your AppleWorks screen.

Adding MouseText to printed documents is a two step process:

1. Configure AppleWorks so it can send the MouseText Begin/End commands.
2. Create documents that use the MouseText characters.

Configuring AppleWorks

The ESCAPE & command tells your ImageWriter II to begin printing MouseText; ESCAPE $ tells the printer to return to the standard ASCII character set. Where you store those commands depends on whether you use version 3.0 or an earlier version of AppleWorks.

AppleWorks 3.0 users generally store the MouseText Begin/End commands in the "Special Codes" area within AppleWorks. If you know how to add codes to the Special Codes area, install the ESCAPE & and ESCAPE $ codes now and skip to the section entitled "Creating Documents" below. Otherwise, add the codes by following the steps in the sidebar entitled "How to Configure AppleWorks 3.0" on the next page.

Figure 1: Sample Document Including MouseText

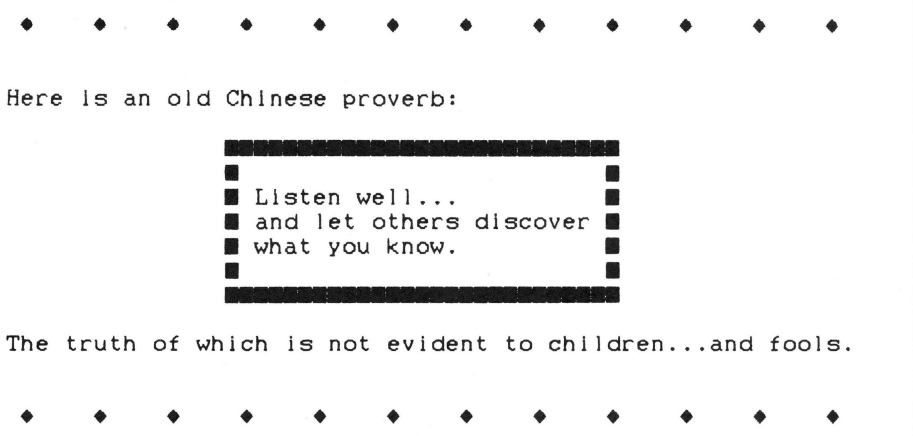

Figure 2: Codes for AppleWorks 1.x and 2.x

```
Characters per inch:
    9  cpi        =   Escape n
   10  cpi        =   Escape N
   12  cpi        =   Escape E
   13  cpi        =   Escape e
   15  cpi        =   Escape q
   17  cpi        =   Escape Q
Lines per inch:
    6  lpi        =   Escape A
    8  lpi        =   Escape B
Boldface Begin    =   Escape !
Boldface End      =   Escape "
Subscript Begin   =   Escape &
Subscript End     =   Escape $
Superscript Begin =   Escape x
Superscript End   =   Escape z

Underlining:
Printer has start/stop underline
commands.
   Underline Begin=   Escape X
   Underline End  =   Escape Y
```

How to Configure AppleWorks 3.0

Follow these steps to add the MouseText Begin/End commands to the Special Codes area in AppleWorks 3.0:

1. With the AppleWorks Main Menu on the screen, select choice #5, "Other Activities".
2. With the Other Activities Menu on the screen, select choice #6, "Select standard settings for AppleWorks".
3. With the Standard Settings Menu on the screen, select choice #6, "Specify information about your printer(s)".
4. With the Printer Information Menu on your screen, select #2, "Add a printer".
5. Scroll down to the ImageWriter II printer and press the Return Key. Call it "MouseText" and select "Slot 1".
6. With the Add a Printer Menu on the screen, select #2 and respond "Yes" to the "Change the value?" prompt.
7. With the Add a Printer Menu still on the screen, select #5, "Printer codes".
8. With the Printer Codes Menu on the screen, select #5, "Special codes".

The Special Codes Menu will display the special codes you entered for any printer on your Printer Menu. AppleWorks 3.0 lets you assign up to eighteen different Special Codes (six codes for each of three printers). However, the program can only accommodate six Special Codes labels. You can store these codes in any one of the six locations available for this printer. For purposes of this tutorial, we will assume that you store the MouseText Begin/End commands in Code 1 and Code 2.

Continue as follows:

9. With the Special Codes Menu on the screen, press the Return Key to select "Code 1".
10. Enter the title "MouseText Begin" and press the Return Key.
11. With the MouseText Begin Menu on the screen, press the Escape Key, the "&" Key (a Shifted-7), and then hold down the Apple Key while you press the Return Key.
12. With the Special Codes Menu back on the screen, select "Code 2" and enter the title "MouseText End" and the commands ESCAPE $ followed by Apple-Return.
13. Enter an Apple-Q to return to the Desktop Index and to save your new settings in AppleWorks.

Earlier versions of AppleWorks do not offer a Special Codes area, so AppleWorks 1.x and 2.x users must add a custom printer to AppleWorks and store the MouseText Begin/End codes in an area normally used for subscript or superscript. Step-by-step directions that describe how to add these codes appear in the article entitled "Getting Italics in Your Documents" in **NAUG**'s ***AppleWorks Handbook: Volume One***. Follow those directions and install the codes listed in *Figure 2*. The table in *Figure 2* includes the codes for MouseText Begin/End in the areas usually used for the Subscript commands.

Creating Documents

Once you install the MouseText commands in AppleWorks, adding MouseText to your documents is easy. You tell AppleWorks to send the code for MouseText Begin and then type one or more letters or symbols that your ImageWriter prints as MouseText. *Figure 3* lists the 32 characters you can enter from the keyboard and the MouseText characters they generate.

To print a MouseText character, AppleWorks 3.0 users (a) enter the Special Codes command that calls MouseText, (b) type the upper case letters or symbols that produce the MouseText characters, and (c) issue the Special Codes command to turn off MouseText.

AppleWorks 1.x and 2.x users enter the Subscript Begin command, the correct upper case characters or symbols listed in *Figure 3*, and then the Subscript End command.

For example, to print the line

The Ó and keys are interchangeable in AppleWorks.

you type

The ^A^ and ^@^ keys are interchangeable in AppleWorks.

The caret marks represent Special Code 1 and 2 commands (for AppleWorks 3.0 users) or Subscript Begin/End commands (for AppleWorks 1.x and 2.x users). When you print, the ImageWriter II switches to MouseText, prints the Open-Apple and Solid-Apple characters, and then returns to the standard text characters.

Drawing Boxes and Lines

Adding a few MouseText characters to a line of text is easy, but drawing the MouseText box in *Figure 1* requires some patience. The trick to drawing boxes is to add the MouseText Begin/End commands *after* you type the text in the center of the box and the characters that will draw the box. As you will see, you can also use the AppleWorks clipboard to save keystrokes as you define the box.

We suggest that you sit down at the Apple II keyboard and work your way through this 15-minute tutorial.

Follow these steps:

1. Create a new word processor document named "Proverb", type the text "Here is an old Chinese proverb:", and press the Return Key.
2. Enter a Left Margin command and set the left margin to 2.5 inches.
3. Press the Return Key twice to enter two blank lines.
4. Type the text "Listen well... <Return> and let others discover <Return> what you know.".
5. Press the Return Key twice, reset the left margin to 1.0 inches, and type the text "The truth of which is not evident to children...and fools." Your screen should now look like the example in *Figure 4*.

Figure 3: MouseText Character Conversions

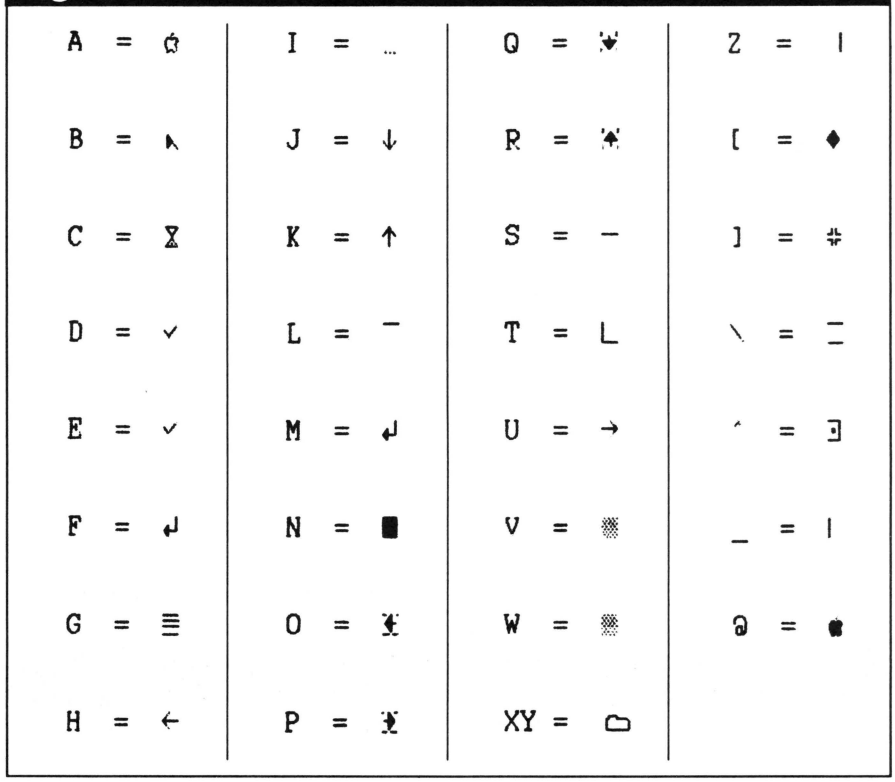

Figure 4: Enter All Text and Margin Commands

```
File: PROVERB                REVIEW/ADD/CHANGE                Escape: Main Menu
=====<====<====<====<====<====<====<====<====<====<====<====<====<====<====<===
Here is an old Chinese proverb:


               Listen well...
               and let others discover
               what you know.


The truth of which is not evident to children...and fools.




--------------------------------------------------------------------------------
Type entry or use ◌ commands          Line 14  Column 58          132K Avail.
```

Now you will add "N's" (which convert to MouseText "blots") to the beginning and end of the longest line of text that will appear within the box. Continue as follows:

6. Put the Insert Cursor on the "a" in "and" and type an upper-case "N". Then press the Space Bar.

Figure 5: Entering First MouseText Characters

```
File: PROVERB                    REVIEW/ADD/CHANGE              Escape: Main Menu
=====<====<====<====<====<====<====<====<====<====<====<====<====<====<====<====<===
Here is an old Chinese proverb:


               Listen well...
               N and let others discover N
               what you know.


The truth of which is not evident to children...and fools.









--------------------------------------------------------------------------------
Type entry or use Ó commands              Line 6  Column 37          132K Avail.
```

Figure 6: Entering the MouseText "Blots"

```
File: PROVERB                    REVIEW/ADD/CHANGE              Escape: Main Menu
=====<====<====<====<====<====<====<====<====<====<====<====<====<====<====<====<===
Here is an old Chinese proverb:

               NNNNNNNNNNNNNNNNNNNNNNNNN

               Listen well...
               N and let others discover N
               what you know.


The truth of which is not evident to children...and fools.









--------------------------------------------------------------------------------
Type entry or use Ó commands              Line 4  Column 38          132K Avail.
```

7. Put the cursor two spaces to the right of the "r" in "discover" (the screen will display "Line 7, Column 37) and type another "N". Your screen should now look like the example in *Figure 5*.

8. Put the cursor at the left margin on the line immediately above "Listen well..." and type "N's" until you get above the "N" at the end of the longest line (the "N" you typed in step #7 above). Then press the Return Key to insert a blank line. Your screen should now look like the example in *Figure 6*.

Now you will add the first MouseText commands.

9. Put the cursor on the first "N" in the line of "N's" you entered in step #8. Then go to the Options Menu and issue the Special Code or Subscript Begin command that starts printing MouseText.

10. Put the cursor at the end of the line of "N's", and issue the MouseText End command.

11. Use AppleWorks' Copy command to copy the MouseText commands and the line of N's to the position where you want the bottom of the box to appear. Your screen should now look like the example in *Figure 7*.

12. Add MouseText Begin/End commands around the "N" you typed in front of the word "and".

Now you will store the MouseText Begin command, the "N", the MouseText End command, and a blank space on the AppleWorks clipboard. Then you will copy that string of commands and characters from the clipboard into the beginning and end of every line. Continue as follows:

13. Put the cursor on the MouseText Begin command you just entered and copy the first four characters (^N^<space>) to the clipboard.

14. Put the cursor on the "L" in "Listen" and copy "From clipboard".

15. Press the Up-Arrow Key and then copy "From clipboard" to insert the MouseText commands and the letter "N" at the beginning of the blank line. Copy the characters stored on the clipboard into the beginning of every line that will print within the box. Delete any extra blank lines that appear as you work.

16. Put the cursor on the "N" after "discover" and enter an Apple-Y to delete the "N". Then issue

another Copy command and copy the "^N^<space>" from the clipboard.

17. Issue an Apple-Z to display the Return blots.

18. Put the cursor on the Return blot after "Listen well..." and press the Space Bar until the blot is above the MouseText Begin command. Then issue an Apple-C and copy from the clipboard.

19. Repeat step #18 until you copy the MouseText commands and letter "N's" onto the end of every line within the box. Your screen should now look like the example in *Figure 8*.

20. Save your work, print the document, and correct any errors.

Figure 7: Display after You Copy the "Blots"

```
File: PROVERB                    REVIEW/ADD/CHANGE              Escape: Main Menu
=====<====<====<====<====<====<====<====<====<====<====<====<====<====<====<===
Here is an old Chinese proverb:

               ^NNNNNNNNNNNNNNNNNNNNNNNNN^

               Listen well...
               N and let others discover N
               what you know.

               ^NNNNNNNNNNNNNNNNNNNNNNNNN^

The truth of which is not evident to children...and fools.









--------------------------------------------------------------------------------
Type entry or use Ó commands              Line 8  Column 11         132K Avail.
```

Figure 8: Completed MouseText Box

```
File: PROVERB                    REVIEW/ADD/CHANGE              Escape: Main Menu
=====<====<====<====<====<====<====<====<====<====<====<====<====<====<====<===
Here is an old Chinese proverb:
--------Left Margin:  2.5 inches

               ^NNNNNNNNNNNNNNNNNNNNNNNNN^
               ^N^                       ^N^
               ^N^ Listen well...        ^N^
               ^N^ and let others discover ^N^
               ^N^ what you know.        ^N^
               ^N^                       ^N^
               ^NNNNNNNNNNNNNNNNNNNNNNNNN^

--------Left Margin:  1.0 inches
The truth of which is not evident to children...and fools.









--------------------------------------------------------------------------------
Type entry or use Ó commands              Line 9  Column 42         132K Avail.
```

Adding the Diamonds

Now you will add the lines of diamonds that appear above and below the text in *Figure 1*. Each row consists of 12 diamonds separated by four spaces. Since the spaces are not MouseText characters, you cannot just type 12 left square brackets (which generates the diamonds) separated by spaces. Your ImageWriter will ignore the non-MouseText space characters when you print. Thus, you must turn off MouseText, enter the spaces, turn on MouseText, and then type another bracket.

This will be more apparent as you complete the tutorial; continue as follows:

21. Issue an Apple-1 to put the cursor at the beginning of the document.

22. Press the Return Key three times to insert three blank lines. Then issue another Apple-1 to return to the beginning of the document.

23. Press the Space Bar, enter a MouseText Begin command, a left square bracket, a MouseText End command, and press the Space Bar four times. Your screen should look like the example in *Figure 9*.

24. Put the cursor on the MouseText Begin command, issue an Apple-C, and copy the commands, bracket, and spaces to the clipboard. Do not copy the Return Blot after the spaces to the clipboard.

25. With the cursor still on the MouseText Begin command, issue another Copy command and

Figure 9: Entering the First Diamond

```
File: PROVERB                    REVIEW/ADD/CHANGE              Escape: Main Menu
=====<====<====<====<====<====<====<====<====<====<====<====<====<====<====<====<===
 ^[^
Here is an old Chinese proverb:
--------Left Margin:  2.5 inches

               ^NNNNNNNNNNNNNNNNNNNNNNNNNN^
               ^N^                         ^N^
               ^N^ Listen well...          ^N^
               ^N^ and let others discover ^N^
               ^N^ what you know.          ^N^
               ^N^                         ^N^
               ^NNNNNNNNNNNNNNNNNNNNNNNNNN^

--------Left Margin:  1.0 inches
The truth of which is not evident to children...and fools.




--------------------------------------------------------------------------------
Type entry or use Ó commands              Line 1  Column 10          132K Avail.
```

Figure 10: Completed First Row of Diamonds

```
File: PROVERB                    REVIEW/ADD/CHANGE              Escape: Main Menu
=====<====<====<====<====<====<====<====<====<====<====<====<====<====<====<====<===
 ^[^   ^[^   ^[^   ^[^   ^[^   ^[^   ^[^   ^[^   ^[^   ^[^
  ^[^   ^[^   ^[^
Here is an old Chinese proverb:
--------Left Margin:  2.5 inches

               ^NNNNNNNNNNNNNNNNNNNNNNNNNN^
               ^N^                         ^N^
               ^N^ Listen well...          ^N^
               ^N^ and let others discover ^N^
               ^N^ what you know.          ^N^
               ^N^                         ^N^
               ^NNNNNNNNNNNNNNNNNNNNNNNNNN^

--------Left Margin:  1.0 inches
The truth of which is not evident to children...and fools.




--------------------------------------------------------------------------------
Type entry or use Ó commands              Line 1  Column  1          132K Avail.
```

copy from the clipboard 11 times. Your screen should now look like the example in *Figure 10*. Do not worry about the "wrapping" of the brackets onto a second line; your ImageWriter will not print the caret marks, so all the diamonds will fit on a single line when you print.

26. Press the Left Arrow Key to put the cursor on the empty space at the beginning of the document. Then issue an Apple-C command and copy both lines of brackets to the clipboard.
27. Issue an Apple-9 to go to the end of the document. Then press the Return Key twice to insert two blank lines.
28. Issue an Apple-C command and copy the two lines of brackets from the clipboard.
29. Save your work.
30. Issue an Apple-P command and print the document. Your output should look like the example in *Figure 1*.

AppleWorks users who make extensive use of MouseText should consider overwriting the text within the box with spaces. Then you can copy the blank box into a document that you use to store all your empty boxes.

Conclusion

The English alphabet has only 26 characters, yet writers find ways to use that limited character set to produce novels, poems, and their other written work. Now just imagine what creative users can do with the 32 MouseText characters AppleWorks can print in your documents.

Next month you will learn how to include these MouseText characters in the documents you display on the AppleWorks screen.

[F. David Stephansky teaches computer courses for Fitchburg (MA) State College and the Plymouth County Education Association. You can reach Mr. Stephansky at 53 Simmons Ave., Whitman, Massachusetts 02382; (617) 447-5156.]

*[Dr. Warren Williams, the President of **NAUG**, is on the faculty at Eastern Michigan University.]*

Ultra 4.0: Taking It to the Max

by Will Nelken

You already know that AppleWorks is the friendliest, most powerful integrated software package for the Apple II computer. You also realize that you can use the Beagle Bros family of TimeOut products to customize AppleWorks for your personal computing needs. The most powerful of these enhancements is TimeOut UltraMacros, which adds speed, automation, menus, and more to all three AppleWorks modules and to the other TimeOut applications.

With a little practice, UltraMacros lets you write powerful, menu-driven programs, employing conditional logic, on-screen user prompts, looping subroutines and more, that work within the familiar AppleWorks environment. These macros can automate data entry, report generation, printing functions, or data transfers. Could there be anything better?

Well, there is! JEM Software's Ultra 4.0 takes UltraMacros to unprecedented heights of power and utility. Developed by Randy Brandt (creator of UltraMacros and co-author of AppleWorks 3.0), Ultra 4.0 upgrades UltraMacros 3.x to include dozens of new and improved features such as expanded variable sets, more powerful looping, improved task file management, and a nearly unlimited library of extension programs known as "Dot Commands" (so called because their names begin with "."). If you thought UltraMacros 3.x was great, prepare to be impressed by Ultra 4.0!

Requirements and Compatibility

Ultra 4.0 requires AppleWorks 3.0 enhanced with UltraMacros 3.x, and at least 192K of RAM in your Apple II.

Although Ultra 4.0 upgrades UltraMacros, you must recompile all your task files and revise some of your macros to insure Ultra 4.0 compatibility. This should cause little difficulty for most users. In many cases, the new commands supported by Ultra 4.0 will let you reduce the size of your macros. However, Ultra 4.0 does not require you to re-write most of your macros.

Ultra 4.0 also lowers the macro table limit to 3984 bytes (from the former 4009 bytes) to make room for some of the new features. However, the task file caching/linking features of Ultra 4.0 make it easy to work around this limitation.

And Ultra 4.0 is compatible with TotalControl 2.x and DoubleData 2.0, fixing some of UltraMacros' previous incompatibilities with those two programs.

Out to Pasture

Ultra 4.0 drops some of the familiar UltraMacros commands in favor of greater versatility. For example, Ultra 4.0 reduces such duplicate functions as <elseoff>/<endif> and <call>/<jsr> to single commands.

Ultra 4.0 does not support <ba-ctrl> (Both-Apples-Control) macros, but I found that the program's new features make the access to these keystrokes unnecessary.

Ultra 4.0 replaces some commands in earlier versions of UltraMacros. For example, <&> is superseded by an expansive library of easier-to-use dot commands. And dot commands replace the <cls>, <id#>, <findpo>, <putvar>, <getvar>, and <menu> commands in UltraMacros 3.x.

The <call> and <clear> commands remain but perform a different function under Ultra 4.0 (see the section entitled "New and Revised Commands" below).

Finally, Ultra 4.0 does not support the <inc>, <dec>, <ifkey>, and <elseoff> commands; you will have to revise any macros that use these commands.

Ultra 4.0 Dot Commands

.beep	varies the sound of the error beep
.caps	capitalizes each word in a specified string
.eof	yields the number of the last WP line, the last DB record, or the last SS row
.findpo	moves the cursor to the next non-text caret, which is usually a printer option
.getfpath	yields the original pathname of the current file
.id	yields the TimeOut ID# of the current application
.lower	forces a specified string to all lower case
.online	determines if a specified file is available on disk
.peekstr	yields the string stored in a specified area of memory
.pokestr	pokes a string into memory at a specified location
.pokezp	stores a byte in zero page memory
.setdisk	changes the AppleWorks path
.setfpath	changes the "original" path of the current file
.upper	forces a specified string to all upper case
.zoomin	forces zoom-in status (opposite of <zoom>)
.getnames	captures the names of a specified range of DB categories
.setnames	changes the names of a specified range of DB categories
.getrec	captures the contents of a specified range of categories in a given DB record
.setrec	redefines the contents of a specified range of categories in a given DB record
.getcat	yields the contents of a specific DB category and record
.setcat	redefines the contents of a specific DB category and record
.catname	captures the name of a DB category specified by number
.catnum	captures the number of a DB category specified by name
.column	yields the number of a specified SS column
.colwidth	yields the width of a specified SS column
.getcell	yields the contents of a specified SS cell
.setcell	redefines the contents of a specified SS cell
.cellid	captures the ID (column/row) of the current SS cell
.lastcol	yields the ID of the last SS column with data
.lastrow	yields the ID of the last SS row with data
.addmany	adds a range of numbered items to a menu in a specified format
.addmenu	adds a single numbered item to a menu
.cls	clears the screen, fully or partially
.domenu	activates the menu
.filecard	draws one to four titled filecards onscreen
.loadvar	restores either some or all of a selected set of saved numeric and/or string variables
.makemenu	creates a vertical menu with numbered items
.menubar	creates a horizontal menu
.popmenu	"pops" the current menu heading from the Escape list displayed at the top of the screen
.qmenu	displays a custom Desktop Index, containing any combination of DB, WP, or SS filetypes you specify
.savevar	saves all numeric and string variables in a file
.say	displays a message on the bottom line
.spacebar	displays the "Press Spacebar" message
.stripchar	strips all consecutive occurrences of leading or trailing characters
.writestr	displays an onscreen message in a specified location

Inits and Dot Commands

Much of the potential of Ultra 4.0 comes from its use of AppleWorks "inits", special programs stored in a subdirectory on the AppleWorks start-up disk. An "Init Manager" runs the inits as part of the AppleWorks 3.0 bootup process. The availability of inits makes it easier for programmers to patch and enhance AppleWorks.

Ultra 4.0 installs the Init Manager (SEG.IM) in your working copy of AppleWorks; you use the manager to determine which inits get launched during the AppleWorks bootup process (see *Figure 1*). Ultra 4.0 also comes with a collection of inits including an on-screen clock, a screen blanker, an enhanced screen printer, Mark Munz's macro debugger, and 45 dot commands.

Although external to UltraMacros, the dot commands effectively extend the list of commands available within your macros. Developers can create additional dot commands, which continue to expand the power of UltraMacros. (For example, JEM's soon-to-be-released Ultra Extras disk offers more than 40 additional dot commands you can call from your macros.) The sidebar entitled "Ultra 4.0 Dot Commands" lists the dot commands included with Ultra 4.0.

Figure 1: Bootup Screen Displaying Inits

```
File: None                          GETTING STARTED
================================================================================
                          JEM Software's AW Inits (v3.1)
                          Copyright 1992 by Randy Brandt
================================================================================
Defaults
Screen Blanker
@-H Options
MenuTools
DB.AND.SS




--------------------------------------------------------------------------------
Install DB.AND.SS v1.0? No  Yes
```

Figure 2: Macro Source File Example

```
        Bytes used: 2686/3984
        labels
❶ ──►   .defaults                          // macro set name
        #Filesearch = oa-Q find rtn        // define compiler labels
❷ ──►   #Filerestore = oa-Q print Q : rtn
        #Down = (down) 9
        #Up = (up) 9
        #Main = sa-esc
        #NextFile = sa-Q
        #LastFile = ba-Q
        #Trash = ba-T
        start
        <ba-)>:<all>!                       // booting startup
❸ ──►   <ba-(>:<all ba-X : #Filerestore :   // return to file previously in use
        msg ' Your default macros have been installed! ' :
        bell : wait 500>!                  // task file startup
        <#Main>:<all oa-Q esc>!             // get to Main Menu
        Dial onscreen number:
❹ ──►   <ba-D>:<adb><call ba-D in "DBDef">!
```

❶ Defining a macro set name
❷ Defining a compiler label
❸ Using a compiler label
❹ Calling a macro in a text file

Compiler Labels and Macro Set Names

Ultra 4.0 lets you define your own "compiler labels" to represent macro names or any series of macro commands that can fit on a single line on your screen. Like the predefined memory labels before them, the compiler labels make it easier to read your source code, and reduce the need for mnemonics. You define the compiler labels under the "Labels" heading before the "Start" command at the beginning of a macro source file (see *Figure 2*).

Ultra 4.0 assigns a default name to each macro set, but you can replace that default with any legal ProDOS file name by defining a given name under the "Labels" heading, preceded by a ".". If you save a set as a task file, Ultra 4.0 offers the default name or the name you entered as the name of the task file you created. You can accept the suggestion or change the name of the file before you save it.

Task File Caching and Launching

Unlike earlier versions of UltraMacros (which always loaded each task file from disk), Ultra 4.0

Figure 3: Launching Cached Task Files

```
File: Ultra 4.0 Rev          LAUNCH A TASK FILE          Escape: UM 4.0 Options
================================================================================
            Select next Task:
            1.  ScreenShot
            2.  DBDef
            3.  addfiles
            4.  defaults
            5.  Launch Task from disk




--------------------------------------------------------------------------------
Type number, or use arrows, then press Return  _                  1676K Avail.
```

Figure 4: Ultra 4.0 Command Changes

<find>	permits "exact", "at the start", "at the end", or "anywhere" matches; works with the display on or off; scans all possible TimeOut menus; even searches the SS
<OA-#>	activates single-stepping, so that UltraMacros pauses for a keypress before it processes each macro command
<savescr>	stores the entire current text screen in memory, lets you draw or post messages on the screen temporarily and then restore the screen as it was
<restscr>	restores the text screen that was stored
<(commands) x>	repeats the command(s) enclosed by parentheses "x" times
<clear x>	clears some or all numeric and/or string variables
<onerr>	offers options that stop everything, stop the current macro, exit a loop, execute another macro, or ignore all errors
<call>	calls a specified macro within another macro set, then returns to the original set and the calling macro
<link>	launches another macro set and executes a specified macro (no return until <unlink>ed)
<unlink>	returns from a <link>ed macro set to the original set
<for-next>	provides real for-next looping; permits nested loops
<step x>	controls the variation of the variable in for-next loops

uses available desktop memory to cache your task files in memory. When you first launch a task file, Ultra 4.0 automatically checks the available desktop memory to determine if you have space to store the file. If it finds enough memory, Ultra 4.0 caches the task file in memory. That speeds up the program by eliminating the need for disk access for all future calls to that task file. When you launch your next task file, Ultra 4.0 displays the cache list for your selection and lets you add a file from a disk (see *Figure 3*).

Ultra 4.0 makes it easy to manage your task files. The new <call> command runs any macro you specify when you launch a task file; the program automatically restores your default macros after it runs the macro. You can also <link> a second set of macros to the first; Ultra 4.0 will run any macro you specify but leave the second set in control until you <unlink> the macros.

Variables

As mentioned earlier, Ultra 4.0 dramatically improves UltraMacros' support for numeric and string variables.

Ultra 4.0 lets you define up to 260 numeric variables in ten arrays from A(Ø) to Z(9). The program even accepts variable designations within the array definition, such as A(B) = 1.

Ultra 4.0 also supports up to 100 string variables, represented by $Ø - $99. Each variable can contain up to 80 characters.

With these additions and the program's enhanced ability to save and reload variable sets (see the sidebar on the dot commands), macro writers should never again feel pinched for available variables.

Annotating Your Macros

The Ultra 4.0 Compiler ignores everything to the right of two slashes in your source code. This makes it even easier to annotate your files. (See *Figure 2* for an example.)

New and Revised Commands

Much of the power of Ultra 4.0 comes from its new and improved macro commands. *Figure 4*

lists the major changes in the Ultra 4.0 language.

UltraMacros 3.x users will notice other changes with Ultra 4.0. Aside from name changes (TO.COMPILER is now TO.UM.COMPILER, and TO.MACRO.OPT is now TO.UM.OPTIONS), Ultra 4.0 lists all its macro options on a single screen (see *Figure 5*). This approach is quicker and more convenient than the earlier hierarchical menu structure. Ultra 4.0 also replaces the single-stepping option with a macro command and the clock option with an init. However, Ultra 4.0 does not support Key-lock.

Figure 5: Macro Options Screen

```
File: Screen                    UM 4.0 OPTIONS       Escape: Review/Add/Change
================================================================================
                          1.  Launch a Task file
                          2.  Create a Task file
                          3.  Save macros as default set
                          4.  Key click on: Yes
                          5.  Cursor blink A: 50
                          6.  Cursor blink B: 40
                          7.  Mouse on: No
                          8.  Mouse button delay:  2
                          9.  Mouse horizontal: 16
                         10.  Mouse vertical: 32
                         11.  Screen blanker on: Yes
                         12.  Screen blanker delay:200

                     Ultra 4.0 Copyright 1992 Randy Brandt
--------------------------------------------------------------------------------
Type number, or use arrows, then press Return  _                  1765K Avail.
```

The Compiler looks and works just as before, except that it also reports the macro set name and the number of labels compiled.

Ease of Use and Learning

Installing Ultra 4.0 is an easy two-step process. First, you boot the Ultra 4.0 disk and use its menu to install the Init Manager. Then you use the same menu to install Ultra 4.0, which copies all its files to their appropriate locations on your AppleWorks Startup Disk or directory. Users of 5.25-inch disks must do some extra disk swapping during installation and bootup, but the installer will let you create a separate disk for your inits. If you have sufficient memory and set AppleWorks to preload its files, the Init Manager will automatically preload the inits at bootup. Installing Ultra 4.0 and the associated files takes less than five minutes.

UltraMacros is a programming language that requires study and practice to master. However, the language is immediately useful, even to those just beginning to learn it.

I found Ultra 4.0 easy to use because the program's enhanced language and structure is closely aligned to our familiar and beloved UltraMacros. However, the learning curve for using the new features depends on your familiarity with UltraMacros and your willingness to study the manual and experiment.

Non-programmers should recognize the large number of public domain, shareware, and commercial macros already available for UltraMacros, although most developers will have to revise their macros to insure Ultra 4.0 compatibility.

Documentation

Ultra 4.0 includes a 60-page printed and humorously illustrated manual. Although the examples in the manual are sketchy, the documentation covers all the features and commands, and the disk includes helpful annotated files, ready for you to compile and test. However, new macro writers would probably appreciate a more detailed, step-by-step tutorial to help them get the most out of the program. *[Ed: Future issues of the **AppleWorks Forum** will include tutorials that describe how to use the new features of Ultra 4.0.]*

Reliability

The "core engine" of the late pre-release version of Ultra 4.0 I used to prepare this review is reliable and consistent. The program is stable and responds appropriately to my commands and mistakes without dropping me to monitor or displaying other unexpected behaviors.

I successfully transferred my macros into a default set and three task files which Ultra 4.0 caches on the desktop when I launch them. The default set contains all the macros that work in <all> domains, plus small module-specific macros that call the real working macros from the cached task files. The

caching and linking features make using all available macros RAM-fast, thus permitting me to effectively use a combined 15,963 byte macro table for my basic macro routines. The more desktop space available on your system, the more taskfiles you can cache and link into one gigantic network of macro routines.

I encountered a few innocuous but annoying problems with the pre-release version of Debug, but other testers cannot replicate my problem. Randy Brandt appears committed to cleaning up these few bugs before releasing the product.

Customer Support

JEM Software offers customer support via GEnie, fax, or mail. This is adequate for my purposes, but users who do not own modems may miss the availability of telephone support. Those users will have to depend on a local user group or on **NAUG**'s Members Helping Members program. Alternatively, you can buy a modem and tap into a nationwide network of users.

Conclusion

Ultra 4.0 has enormous potential. While most of my old macros run just fine when re-compiled in Ultra 4.0, the possibilities for streamlining my current macros and expanding my usable macro library in unprecedented ways has my head spinning.

For people who like AppleWorks and want the most out of their software, the UltraMacros/Ultra 4.0 combination offers unbeatable possibilities. For those who write macros for themselves, their students, their companies, or commercially, Ultra 4.0 is a must.

*[Will Nelken, who is the pastor of a church in San Rafael, California and a **NAUG** Members Helping Members volunteer, is the author of "ULTRA-AppleWorks: A Tutorial in UltraMacros Programming", and the upcoming supplement, "ULTRA to the Max: Programming with Ultra 4.0". His business, Marin MacroWorks, also publishes Ultra-AWesome Macros, a collection of useful macros and task files.]*

How to Use synthLAB with 3.5-inch Disk Drives

by Phyllis R. Kuehn

The synthLAB program that comes with System 6 lets you record and play high quality music on your Apple IIGS computer. *[Ed: See the letter published in the July 1992 issue of the **AppleWorks Forum** for a description of synthLAB.]*

Although you need a hard drive to use the synthLAB Installer, you can run synthLAB on a system equipped with only a single 3.5-inch disk drive. Follow these steps to prepare your disks:

1. Go to the Control Panel, select "Slots" and deactivate AppleTalk.
2. Make copies of the GS/OS System Disk and the synthLAB disk. Do all your work on these backups.
3. Launch the Finder and copy Tool 35 from the synthLAB disk into the Tools Folder on the System Disk.
4. Delete all except the "Appledisk3.5", "Appledisk5.25", and the "Console" drivers from the Drivers Folder within the System Folder.
5. **Optional**: You can deactivate the 5.25-inch disk drive to speed up your system and eliminate the rattling noise made by the drive. To deactivate the drive, open the Drivers Folder within the System Folder, single-click on the Appledisk5.25 file to select that driver, and press Apple-I to display the Get Info Window. Then click in the "Inactive" box, close the Get Info Window, and reboot your computer. Repeat this procedure to reactivate the drive.
6. **Optional**: You can get up to 205K of space to store music on the synthLAB disk by deleting the Reference File, the Icon Folder, and Tool 35 from that disk.

Now you can reboot your computer with the modified System Disk, switch to the synthLAB disk when the Finder appears on your screen, and launch synthLAB.

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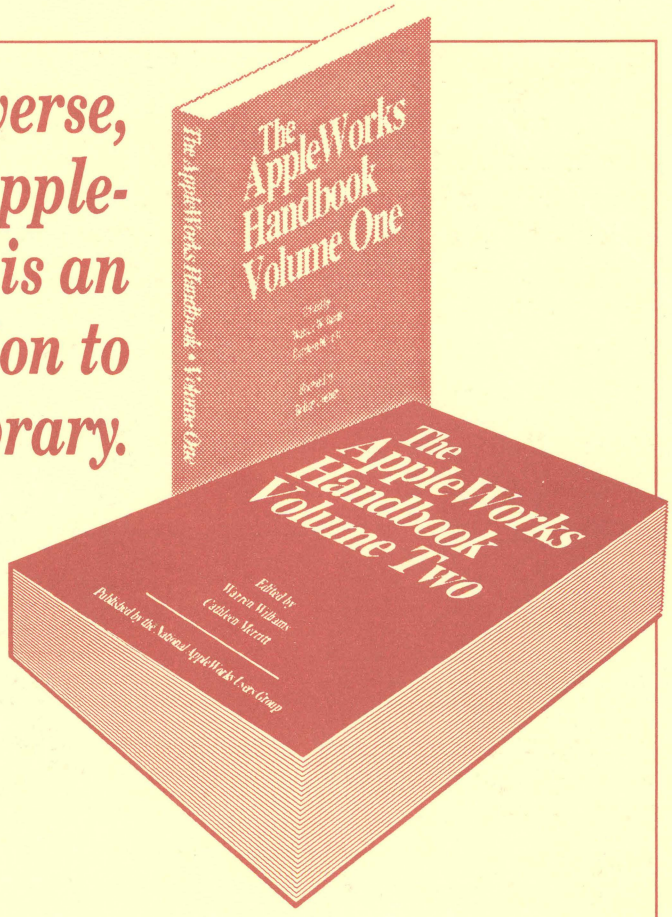

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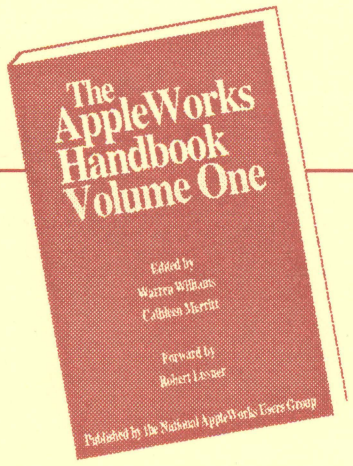

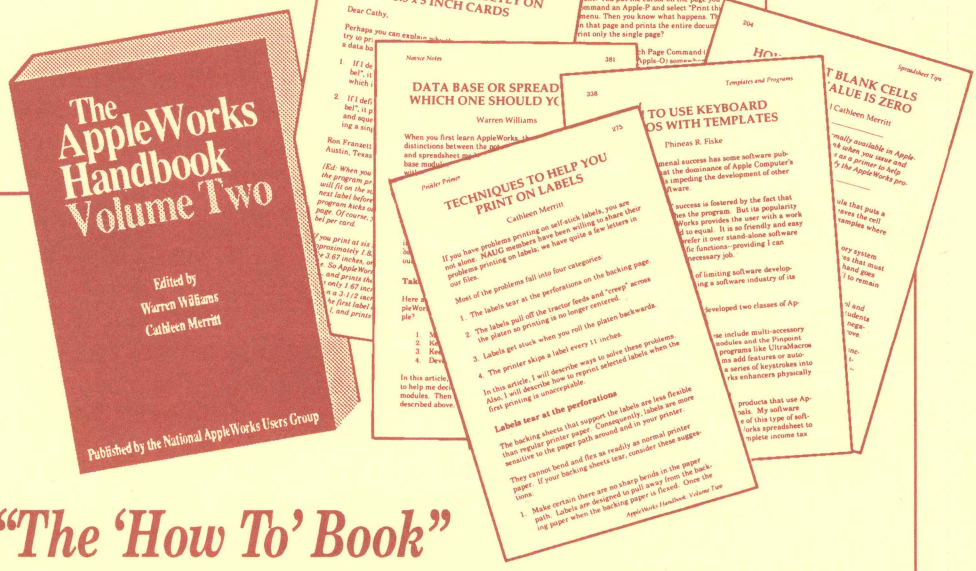

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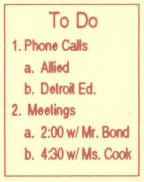

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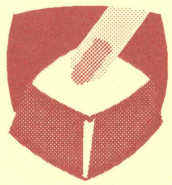

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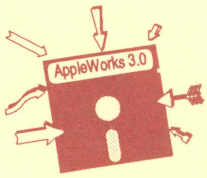

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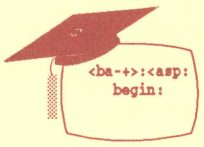

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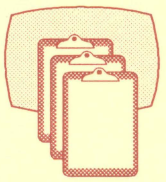

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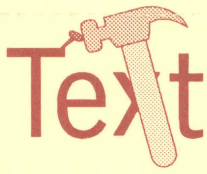

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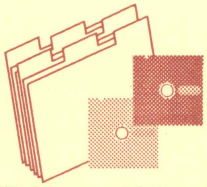

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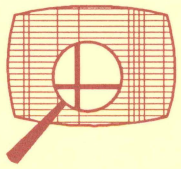

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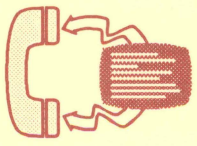

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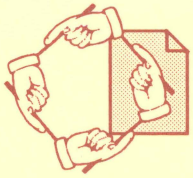

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_____	TextTools	29.95	_____
_____	UltraMacros	35.95	_____
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		Total Enclosed $	_____

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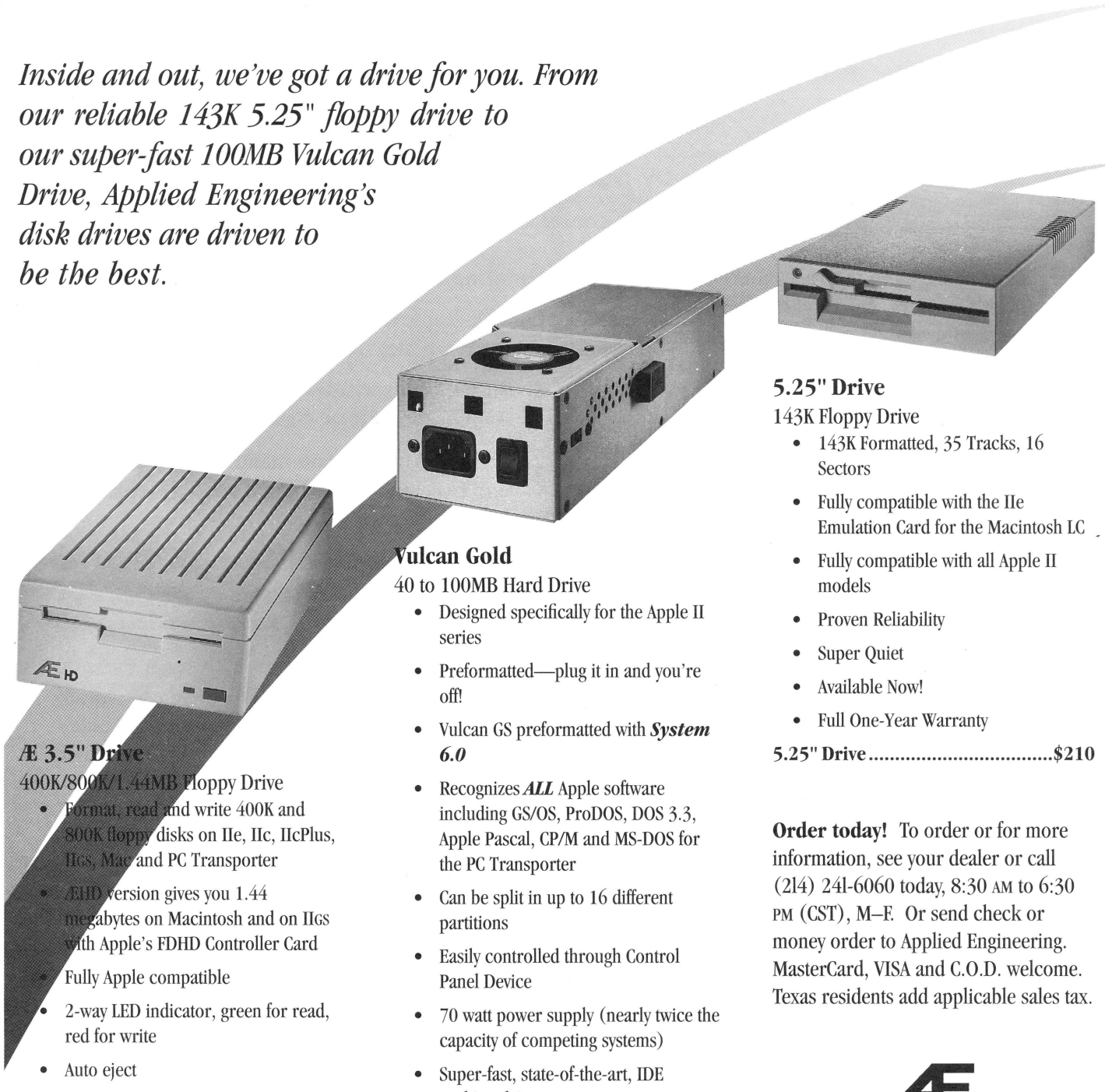

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A Mortgage Loan Amortization Template

by Stan Hecker

The recent changes in interest rates continue to spur home owners, car buyers, and business owners to examine the costs of mortgages and loans. As a result, many of us are refinancing our debts; others are "paying down" our loans by submitting voluntary balloon payments and by increasing our monthly payments.

A good loan amortization table can help you decide whether to pre-pay a loan, increase your monthly payments, or refinance your debt. That is the purpose of the template that appears in *Figure 1*.

NAUG member interest in amortization tables is not new; **NAUG**'s Public Domain Library includes more than 25 different amortization templates. And instructions for developing a simple amortization template appeared in the June 1991 issue of the ***AppleWorks Forum***. This month's template expands on that work and accommodates variables not included in the earlier template. The template assumes a monthly payment that is due at the end of each month; this is the structure used for most mortgages and consumer loans.

You can use this template with all versions of AppleWorks and, with minor changes, most other spreadsheet programs. However, the template, like all long-term amortization templates, requires a lot of AppleWorks desktop memory. Specifically, using the template to examine a 30-year loan requires at least 55K of AppleWorks desktop; the sidebar entitled "Amortization Tables that Use Less Memory" describes ways that you can develop less memory-intensive templates.

To give credit where it is due, Tom Weishaar, an Apple II innovator and publisher of the A2-Central newsletter, developed the underlying model for this template.

Creating the Template

Launch AppleWorks and follow these steps to create the template:

1. Start a new spreadsheet from scratch; call it AMORTIZATION. Save your work often.
2. Use the Apple-V command to set the calculation frequency to "Manual" and the calculation order to "Rows".
3. Use the Apple-L command to change the column widths as follows:

Column	Width (Characters)
A	5
B	7
C	16
D	13
E	10
F	10
G	13

When you are done, column G should occupy the right-most columns on your screen.

4. Issue an Apple-V command and set the default Value format settings to Fixed format with two decimal places.
5. Type the "Table of Contents" and "Brief Instructions" from *Figure 1* into rows 2 through 38 of your template.
6. Put the cursor in cell A43, issue an Apple-L command, and change the Label format for the block of cells between A43 and G45 to Right Justified. Then enter the labels shown in *Figure 1*.
7. Put the cursor in cell A47, issue an Apple-L command, and set the layout for the block of cells consisting of cells A47 through B48 to Values, Fixed format, with no decimal places.

8. Use the Apple-L command to set the layout for cell E47 to Values, Fixed format, with four decimal places.
9. Type the number "1" into cells A47 and B47.
10. Type zeros into cells C47 through E47 and cell G47.
11. Type the expression `(C47+D47)*E47` into cell F47.
12. Type the expression `+A47` into cell A48.
13. Type the expression `+1+B47` into cell B48.
14. Type the expression `@SUM(C47...D47, F47...G47)` into cell C48.
15. Type a zero into cell D48.
16. Type the expression `+E47` into cell E48.
17. Issue an Apple-L command and change the layout of cell E48 to Value, Fixed, with four decimal places.
18. Copy cell F47 into cell F48, using the "Relative" option.
19. Enter the expression `+G47` into cell G48.

Expanding the Template

Now you will expand the template so it does the necessary calculations for a full year. Continue as follows:

20. Use AppleWorks' Copy Command to copy the block of cells between cell A48 and G48 into rows 49 through 60, using the "Relative" option. (AppleWorks 1.x and 2.x users should hold down the "R" key until their computer beeps. AppleWorks 3.0 users can issue an Apple-R in

Figure 1: Loan Amortization Template

```
=======A=====B==========C==============D==========E=========F==========G======
01|
02|                APPLEWORKS LOAN AMORTIZATION TEMPLATE
03|
04|
05|
06|                     -----CONTENTS-----                              Row #
07|
08|    Brief instructions (use 'Apple-down-arrow' twice).................17
09|    Main template begins (use 'Apple-2').............................43
10|
11|
12|
13|
14|
15|
16|
17|               -----BRIEF INSTRUCTIONS-----
18|
19|    This template focuses on MONTHLY payments. Therefore, enter all
20|    interest rates as DECIMAL FRACTIONS, then divide the decimal fraction
21|    by 12. For example:
22|          8.5% is entered as:   0.085/12
23|    Also--enter ALL payments as NEGATIVE numbers. Finally, you can, at
24|    any time, enter a balloon payment, change the interest rate, or
25|    change the regular monthly payment. The latter two changes--to
26|    interest rate and regular payment--will be continued down through
27|    the template from that point onward.
28|
29|      (Brief instructions continue on the next screen)
30|
31|
32|    If you use a payment amount calculated from a table or by a bank,
33|    the Beginning Balance will go negative the month after
34|    the loan matures--the first month of the 21st year, or whatever.
35|    If planning balloon payments, variable interest rates, or varying
36|    monthly payments, then you will want to use this template to discover
37|    when the redefined loan ends. The "Beginning Balance" column is your
38|    key--when the balance goes negative, your loan has ended.
39|
40|
41|
42|
43|                                    (Negative)   Decimal                (Negative)
44| Year  Month       Beginning        Balloon    Int Rate   Interest       Monthly
45|                    Balance         Payment    / 12 mon    amount        Payment
46|
47|    1      1       50000.00           0.00       .0083     416.67        -439.40
48|    1      2       49977.27           0.00       .0083     416.48        -439.40
49|    1      3       49954.34           0.00       .0083     416.29        -439.40
50|    1      4       49931.23        -500.00       .0083     411.93        -439.40
51|    1      5       49403.76           0.00       .0083     411.70        -439.40
52|    1      6       49376.05           0.00       .0083     411.47        -439.40
53|    1      7       49348.12           0.00       .0083     411.23        -440.00
54|    1      8       49319.36        -500.00       .0083     406.83        -440.00
55|    1      9       48786.18           0.00       .0083     406.55        -440.00
56|    1     10       48752.74           0.00       .0083     406.27        -440.00
57|    1     11       48719.01           0.00       .0083     405.99        -440.00
58|    1     12       48685.00           0.00       .0083     405.71        -440.00
59|    2      1       48650.71           0.00       .0083     405.42        -440.00
60|    2      2       48616.13           0.00       .0083     405.13        -440.00
```

Amortization Tables that Use Less Memory

Although adding memory to an Apple II is both inexpensive and easy, we must remember the many users who happily run AppleWorks on their 128K Apple II systems. Some creative thinking on our part can result in modified templates that require less memory.

For example, consider the template described in this month's My Favorite Template article. That template includes one line for each payment; the longer the repayment period for the loan, the more memory you need for the template.

Fortunately, you can accomplish the same objective in a template that can produce an amortization schedule for any number of repayment periods yet requires less than 20K of AppleWorks desktop memory.

You base the design on the way spreadsheet programs operate when they calculate in "row" order. Specifically, when a spreadsheet calculates in row order, the data in the bottom row of the spreadsheet remains unchanged until the program recalculates all the rows above it.

The trick is to enter formulas at the beginning of the template that use the unchanged data at the bottom of the template to determine the next loan period. For example, if the bottom row of the template indicates that it contains data for the fifth year of the loan, you can easily put formulas at the beginning of the template that do the calculations starting with the sixth year of the loan.

Specifically, you will change the formulas in cells A47 and C47 in the accompanying template so they check the last row to determine the correct payment period. When you are done, you will have a template that calculates the repayment schedule for the next five years of the loan each time you press an Apple-K. That is, the first time you press Apple-K, the template will display the schedule for the first five years of the loan. Press Apple-K again and the same template will display the repayment schedule for the next five years of the loan. And so forth.

This will be more apparent as you modify the template you developed in the accompanying article. Follow these step-by-step directions:

Proceed through step 24 of the main article. Then continue as follows:

24a. In cell D9, change the word "Apple-2" to "Apple-5".

24b. Copy the clipboard data to the spreadsheet three times. This sets the template to amortize a five-year loan.

Row 106 should be last row used on your evolving template.

24c. Enter this expression into cell A47:

```
@IF(F47=Ø,1,A1Ø6+1)
```

This expression says "If cell F47 is zero, then no interest was calculated; this is a new template. Therefore, put a 1 in this cell to signify the first year of the loan. If cell F47 is greater than zero, the template is being recalculated. In this case, get the value from cell A106 at the bottom of the template and add one to it."

24d. Enter this expression in cell C47:

```
(IF(F47=Ø,C46,C1Ø6-(-1*G1Ø6)-
F1Ø6))
```

This expression is similar to the expression in cell A47 described above. It says: "If cell F47 is zero, then this template is fresh; copy the starting balance from cell C46. However, if cell F47 is greater than zero, take the value from the bottom of the template, subtract that month's principal payment from it, and use the remaining balance as the starting balance for this month."

Now return to the main article and continue starting at step #25 until you get to step #31.

Setting Protection

After you complete step #31, change the data and protection as follows:

31a. Lower the protection of cell C46 to "Values only". Enter a zero in this cell.

31b. Raise the protection of cell C47 to "Nothing".

Using the Template

Enter the starting balance of the loan in cell C46.

Enter the interest rate and payment amount as described in the main article.

Press Apple-K once and the template will caculate the first five years of the loan. Press Apple-K a second time and the template will calculate years six through ten of the loan. A third press of Apple-K displays years 11 through 15. Each time you press Apple-K, the template will display the next five years of the loan schedule.

Printing a record of the loan involves printing each five year segment, which is one of the few disadvantages of such "wrap-around" spreadsheets.

Resetting the Template

If you use the spreadsheet as a "what-if?" forecasting tool ("What if I pay extra?", "What if interest rates drop?"), you will want to reset the template to zero. Enter a zero in cell C46, a zero in cell E47, and a zero in cell G47. Then press Apple-K twice to reset the template.

response to the first "Reference to...?" question.)

21. Issue an Apple-K to do a preliminary calculation. Note that cell B59 references the thirteenth month of the first year of the loan. Replace that formula with the number "1".

22. Type the expression `+1+A58` into cell A59. Then issue another Apple-K.

23. Use AppleWorks' Copy Command to copy cells A60 through G60 into rows 61 through 70, using the "Relative" option. Issue an Apple-K and note that the template will now amortize a two-year loan.

24. Use the Copy Command to copy rows 59 through 70 to the AppleWorks clipboard.

You can now expand the template to accommodate any size loan that will fit in desktop memory. For example, copy the contents of the clipboard into row 71 and specify "Formulas and Values". Press Apple-K and your template will now amortize a three-year loan. Continue copying from the clipboard until the template is long enough to meet your needs.

Alternatively, you can make the template large enough to accommodate five years of data, then save the template and expand the model when you need to use it.

Figure 2: Locked Column Headings

```
File: AMORTIZATION            REVIEW/ADD/CHANGE              Escape: Main Menu
=======A=====B==========C=============D==========E=========F==========G======
  43|                                  (Negative)   Decimal              (Negative)
  44| Year  Month       Beginning       Balloon  Int Rate  Interest       Monthly
  45|                     Balance       Payment  / 12 mon    amount       Payment
  84|    4      2        11877.18          0.00     .0083     98.98       -355.00
  85|    4      3        11621.16          0.00     .0083     96.84       -355.00
  86|    4      4        11363.00          0.00     .0083     94.69       -355.00
  87|    4      5        11102.69          0.00     .0083     92.52       -355.00
  88|    4      6        10840.22          0.00     .0083     90.34       -355.00
  89|    4      7        10575.55          0.00     .0083     88.13       -355.00
  90|    4      8        10308.68          0.00     .0083     85.91       -355.00
  91|    4      9        10039.59          0.00     .0083     83.66       -355.00
  92|    4     10         9768.25          0.00     .0083     81.40       -355.00
  93|    4     11         9494.65          0.00     .0083     79.12       -355.00
  94|    4     12         9218.77          0.00     .0083     76.82       -355.00
  95|    5      1         8940.60          0.00     .0083     74.50       -355.00
  96|    5      2         8660.10          0.00     .0083     72.17       -355.00
  97|    5      3         8377.27          0.00     .0083     69.81       -355.00
  98|    5      4         8092.08          0.00     .0083     67.43       -355.00
--------------------------------------------------------------------------------
A84: (Value, Layout-F0, Protect-N) +A83

Type entry or use ó commands                                      212K Avail.
```

Figure 3: Setting Protection

```
File: AMORTIZATION            REVIEW/ADD/CHANGE              Escape: Main Menu
=======A=====B==========C=============D==========E=========F==========G======
  43|                                  (Negative)   Decimal              (Negative)
  44| Year  Month       Beginning       Balloon  Int Rate  Interest       Monthly
  45|                     Balance       Payment  / 12 mon    amount       Payment
   1|
   2|               APPLEWORKS LOAN AMORTIZATION TEMPLATE
   3|
   4|
   5|
   6|                        -----CONTENTS-----                              Row
   7|
   8|     Brief instructions (use 'Apple-down-arrow' twice).................17
   9|     Main template begins (use 'Apple-2').............................47
  10|
  11|
  12|
  13|
  14|
  15|
--------------------------------------------------------------------------------
A1

Type entry or use ó commands                                      212K Avail.
```

Setting Titles

Now you will lock the column headings so they stay at the top of the screen when you scroll down the template (see *Figure 2*). Continue as follows:

25. Scroll up the template until row 43 is at the top of the AppleWorks screen.

26. Put the cursor anywhere in row 46.

27. Issue an Apple-T command and choose "Top".

Your screen will not change, but the column headings will now stay in place at the top of the screen when you scroll down the template.

Protect Your Work

Now you will use AppleWorks' protection feature to keep yourself from accidentally deleting or changing any of the formulas or labels in your tem-

plate. Start by setting protection so it does not allow any changes in the template. Then lower the level of protection for selected cells. Follow these steps:

28. Put the cursor in cell A1. Your screen will look like the example in *Figure 3*. (Setting rows 43 through 45 as Titles creates the unusual sequence of rows displayed in *Figure 3*.) Issue an Apple-L command, choose Block, and highlight the entire template.
29. Choose "Protection" and allow "Nothing".
30. Put the cursor in cell C47, issue an Apple-L command and change protection to "Values Only".
31. Set protection for the block of cells in column D, from cell D47 to the bottom of the template, to "Values Only".
32. Do the same for columns E and G, beginning in row 47.
33. Save your template.
34. Use TimeOut FileMaster, Copy II+, or another disk utility to lock your template. *[Ed: See the article entitled "How to Lock Your Templates" in the May 1991 issue of the* ***AppleWorks Forum*** *for the necessary step-by-step directions.]*

Using the Template

Figure 1 shows the template amortizing a 30-year mortgage for $50,000 at 10% interest. Follow these steps to use the template:

1. Enter the starting balance of the loan in cell C47.
2. Enter the annual interest rate as a decimal fraction in cell E47. For example, enter a 10% interest rate as .1/12. The division by 12 signifies that you want to compute the monthly interest. AppleWorks will convert the fraction into a decimal value when you press the Return or Enter Key.

The interest rate will never change for a fixed rate mortgage loan. But the interest rate does change for a variable rate loan. Just enter the new rate for the appropriate pay period whenever the rate changes.

3. Enter the initial monthly principal and interest payment as a negative number in cell G47. This payment will remain level for a conventional loan. However, many contracts let you submit extra payments which reduce your principal, as shown in the example in *Figure 1*.

Note how the payments in column G are changed in the seventh month of the loan to bring the payments to an even dollar amount and to shorten the term of the loan. Just enter your new payment into the template and re-calculate.

4. This template accommodates balloon payments paid at the beginning of any month. Remember to enter all balloon payments as negative numbers. (For example, note the $500 payments in Column D of *Figure 1*.) The template does not accommodate escrow payments.
5. Now enter an Apple-K, scroll down the template, and check your work. If the "beginning balance" (column C) of the loan goes to zero or slightly negative in the last month of the loan, then everything is correct.

Now you can use the template to check the impact of different repayment schedules and interest rates. Just enter the new values, issue an Apple-K, and study the results. You can also use AppleWorks' @SUM function to create a formula at the bottom of the template that computes the total cost of each scenario.

Summary

Bankers and other lending agencies always seem to create new ways to entice us to borrow money. You can use this month's template to determine the true cost of some of these more complex repayment schedules.

[Stan Hecker is on the administrative staff at Michigan State University, East Lansing, Michigan, and is a partner in H&H Consulting, a Michigan concern specializing in school district financial and population analyses.]

[A working copy of this template appears on this month's issue of ***NAUG on Disk****, which costs $10 from* ***NAUG****. The template works with any version of AppleWorks;* ***NAUG on Disk*** *requires a 3.5-inch disk drive.]*

Special Offers for NAUG Members

Academic Software, Inc.

A "picture icon" is a pictorial representation of an object, action, or feeling that you can use to facilitate communication by individuals who are speech impaired. These graphic images are useful for special education teachers and anyone who does desktop publishing or creates signs, banners, greeting cards, tests, worksheets, and other documents that contain pictures.

Academic Software (ASI), a developer of computer-based picture icon libraries, recently released *Picture Icon X-CHANGE*, a utility that converts picture icons into a format you can import into AppleWorks GS, PrintShop GS, and into any Apple II program that can accept Hi-Resolution, Double Hi-Resolution, Super Hi-Resolution, or PrintShop GS graphics.

Picture Icon X-CHANGE normally sells for $40. However, **NAUG** members can buy the program directly from the ASI for $28 plus $4 s/h.

NAUG members can also get special discount prices on the picture icon libraries available from ASI. The *Core Picture Vocabulary* contains 160 line drawings depicting people, actions, possessions, common objects (*e.g.*, a book and a tape recorder), foods, and feelings. The *Holidays* library contains 91 pictures depicting 31 holidays, seasons, religious and ethnic occasions, and special events. ASI's *KeyPics* library contains 150 line drawings depicting the functions of the keys on Apple and IBM keyboards. Each of these libraries retails for $30 but costs **NAUG** members $21 including shipping when ordered with *Picture Icon X-CHANGE.*

NAUG members can also get special discounts on the *Picture Communication Symbols* library developed by the Mayer-Johnson Company. *Picture Communication Symbols* contains more than 1600 graphic images arranged in six categories: nouns, people, verbs, descriptive, social, and miscellaneous. These symbols are available in two forms. The Basal Edition includes 950+ symbols on one 3.5-inch diskette and retails for $99. The Complete Edition consists of all 1600+ picture icons on two diskettes and retails for $149. **NAUG** member prices are $69 and $105 respectively including shipping when ordered with *Picture Icon X-CHANGE.*

Academic Software accepts purchase orders and personal checks. Include your **NAUG** membership number with your order. The company offers a 30-day satisfaction guarantee.

[Academic Software, Inc., 331 West Second Street, Lexington, Kentucky 40507; (606) 233-2332.]

Closing the Gap

Closing the Gap is an internationally recognized source of information on the use of microcomputer-related technology for and by exceptional individuals. The organization publishes a bi-monthly newsletter that reviews hardware and software products appropriate for handicapped and disabled persons and describes how this technology is used in educational and vocational settings around the world. The organization also publishes a resource directory that lists the commercially available hardware and software products designed for special education and rehabilitation.

Closing the Gap recently released the preliminary program for its 10th annual Microcomputer Technology for Special Education and Rehabilitation convention to be held in Minneapolis from October 22-24, 1992. **NAUG** members who work with special populations should contact the organization for a copy of the 40-page booklet that describes many of the more than 150 one-hour presentations and workshops presented at the conference.

[Closing the Gap, Box 68, Henderson, Minnesota 56044; (612) 248-3294; Fax: (612) 248-3810.]

JEM Software

OmniPrint is JEM Software's new AppleWorks 3.0 word processor enhancement that makes it easy to use the features built into the ImageWriter II printer.

Using OmniPrint is easy; you embed OmniPrint commands in your word processor document and press Apple-Return when selecting your ImageWriter. You can then use the ten special OmniPrint fonts included with the program or use the fonts you can create with the included OmniPrint font editor.

OmniPrint also makes it easy to include MouseText, color, borders, mixed characters per inch settings, half height characters, near letter quality and draft quality, overstrike characters, diacritical marks, and slashed zeros in your documents. Finally, OmniPrint makes it easier to use the built-in foreign language character sets in the ImageWriter II.

OmniPrint complements TimeOut SuperFonts. SuperFonts produces elegant documents using proportional fonts and alternate character sets. However, SuperFonts prints slowly because the program uses the graphic capability of your printer.

OmniPrint uses built-in and downloaded fonts to produce attractive monospaced output. Printing is much faster than with SuperFonts, but the OmniPrint printouts cannot match the attractiveness of the output produced by SuperFonts.

The OmniPrint documentation comes in a 36-page word processor file on the disk. The word processor document demonstrates how to use OmniPrint; you read the documentation and then study the file to see how the author produced the output.

OmniPrint requires AppleWorks 3.0 and an ImageWriter II printer. The program is compatible with all JEM and TimeOut enhancements to AppleWorks.

OmniPrint lists for $40, but **NAUG** members can buy OmniPrint directly from JEM for $30 plus $3 s/h. Colorado residents must add sales tax. International orders, add $2. Visa and MasterCard accepted.

[JEM Software, 7578 Lamar Court, Arvada, Colorado 80003. Orders and fax: (303) 422-4856; follow the voice prompts to send a fax.]

Quality Computers

Quality Computers recently announced the release of Platinum Paint 2.0, an upgrade to the popular Apple IIGS graphic program formerly distributed by Beagle Bros.

Version 2.0 adds several unusual and interesting features to Platinum Paint including "talking templates" that children can color on the screen, support for larger pictures, automatic scrolling, improved fat-bits, and support for many of the features available in System 6. Platinum Paint 2.0 also supports animation including the ability to create, run, and control your own animated sequences.

Platinum Paint lists for $99.95 and costs $59.95 from Quality. Upgrades from earlier versions of Platinum Paint cost $30; the upgrade package includes a new manual.

[Quality Computers, 20200 Nine Mile Road, St. Clair Shores, Michigan 48080; (800) 777-3642; Fax: (313) 774-2698.]

inCider/A+

NAUG members can now get special discount prices on the following popular AppleWorks and AppleWorks GS templates and clip-art disks produced by inCider/A+ magazine:

Productivity Paks: Each AppleWorks Productivity Pak includes ten ready-to-use templates that save you time and simplify your work. Each Pak includes complete documentation and a sample file you can use before creating your own application.

AppleWorks 3.0 Productivity Pak I: Checkbook Manager, Desktop Publisher; Membership Organizer; Inventory Organizer; MailMerge Postcard; Statements; Nutridata; Nuticalc; Auto-Mileage Log; Home Construction. Order product #5011.

AppleWorks 3.0 Productivity Pak II: Living Will; Home Buyer's Guide; Booklet; Family Tree; Videotape Library; Car Cost Comparison; Income Taxes; Custom Calendars; Cookbook; College Guide. Order product #5012.

AppleWorks GS Productivity Pak I: Memo Pads; Membership; Name Badges; Merge Document; Auto Mileage Log; Resumes; Nutridata; Checkbook; Budget; Newsletter. Order product #5021.

AppleWorks GS Productivity Pak II: Living Will; Home Buyer's Guide; Booklet; Family Tree; Videotape Library; Car Cost Comparison; Income Taxes; Custom Calendars; Cookbook; College Guide. Order product #5022.

Each Productivity Pak lists for $29.95. **NAUG** members can buy the Productivity Paks for $16 each or two Paks for $27. Order product #5905 for the combined AppleWorks 3.0 Paks; product #5904 for the combined AppleWorks GS Paks.

NAUG members can also get special prices on inCider/A+'s extensive collection of art for AppleWorks GS and Print Shop.

Art Gallery I (product #5031) contains over 300 graphic images created for AppleWorks GS. Images include birds and flowers, wild and domestic animals, home, school, and business images, holiday symbols, and more. Order product #5031.

Art Gallery II (product #5033) contains bigger, bolder graphics, imaginative borders, sea creatures, animals, household items, vehicles, dinosaurs, insects, holiday designs, and more.

Art Gallery I and II, which require AppleWorks GS, list for $39.95 each. **NAUG** members can buy either package for $17.95 or both packages for $30. (Order product #5906 for the special combination price.)

Clip-Art Collection I (product #5041) contains fonts, borders, and graphics you can use with Print Shop running on any Apple IIe, IIc, IIc Plus, or IIGS. The four volumes in this collection contain images related to holidays, vacation, travel, animals, people, and education.

Clip-Art Collection II (product #5045) contains additional Print Shop-compatible fonts, borders, and images related to home, business, animals, people, education, and sports.

The Clip-Art Collections list for $49.95 per set. **NAUG** members can get each collection directly from inCider/A+ for $12.

The Print-Shop GS-specific version of Collection II lists for $69.95 but costs **NAUG** members $15. Order product #5046.

To qualify for these special **NAUG** prices you must mention source code #52NA and the product number(s) you want to order. Maryland and California orders must include applicable sales tax. All prices include shipping within the United States; add $3.95 per order for airmail delivery outside the U.S.. All orders must be prepaid in U.S. funds drawn on U.S. banks. This offer valid while supplies last.

[A+ Special Products, Box 1641, Salisbury, Maryland 21801; (800) 582-7006; Outside the U.S./Canada: (410) 546-0261.]

Corrections

August 1992, page 4: Change three references to the cpi code for CHICAGO.40 from 9 cpi to 13 cpi. The incorrect references occur in *Figure 4* and in paragraph 5A to the right of *Figure 4*.

August 1992, page 7: Jim Emig's daytime telephone number is (503) 280-5676

A Macro that Adds TimeOut Applications

by Keith Johnson

How many TimeOut applications do you use? Although some of us use only one or two applications, many AppleWorks users own dozens these popular enhancements.

Users with more than 15 TimeOut applications should consider organizing their TimeOut products into groups. That will speed up the AppleWorks launching process and make it easier to find the application you want without looking through the long TimeOut menus that appear on your screen. You probably do not use many of your applications often anyway.

Create Multiple Directories

One way to simplify things is to store each set of related TimeOut applications in a separate directory. For instance, I keep all my spreadsheet applications in a directory called ".../TO.ST" (for "SpreadTools"), and macro applications (like the Macro Compiler) in ".../TO.MACRO". I store the TimeOut applications I use most often in a directory called ".../TO.BOOT" and configure TimeOut so it finds and adds the applications in that directory when I launch AppleWorks. Then I use the TimeOut Utilities to add another group of applications when I need them.

Although I could add the applications manually, I use the macro in *Figure 1* to automate the process. The macro launches the TimeOut Utilities, highlights "Add applications", switches to the correct directory, and creates a new TimeOut menu containing the new applications.

Organizing Your Directories

Before you can use the macro, you must organize your applications into separate directories.

I use a hard disk called "/AE1," and store my AppleWorks program files in "/AE1/AW.DJ". ("DJ" is my nickname; I share the drive with my wife whose AppleWorks program files are in "/AE1/AW.B"). I store all the TimeOut applications in directories within "/AE1/AW.DJ"; each directory name starts with the characters "TO.". (The "TO" prefix has no functional value, but makes it easier to recognize the purpose of each directory.) I currently maintain ten TO. directories, although only six appear in the macro in *Figure 1*.

Then you must customize the macro for your own configuration. Directions for customizing and using the macros follow.

How to Use the Macro

1. Create the directories you need and copy the appropriate TimeOut applications into each directory. Copy the applications you want added on bootup into one of the directories. (You must include TimeOut Utilities in this directory.) Then boot your system with a TimeOut disk, run the TimeOut installation program, and set this directory as the bootup application pathname.

2. Type the macro into a word processor document. Then change (a) the names of the hard disk and directories, and (b) the number of choices in the menu to match your situation. Next, compile and test the macro. When it works properly, use the AppleWorks clipboard to add it to the word processor file that contains your default macros, compile the macros, and make them your default set. Step-by-step directions for this process appear in a sidebar on page 19 of the April 1992 issue of the ***AppleWorks Forum***.

Figure 1: Macro that Adds TimeOut Applications

```
<ba-T>:<all><                          { Define the macro.                                          }
 cls :                                 { Clear the screen. Start the menu process.                  }
 poke #menuhelp, Ø :                   { No help screens available.                                 }
 poke #menuhor, 26 :                   { Start the menu in column 26.                               }
 z = 6 :                               { Start on line 6.                                           }
 poke #menuinc, 1 :                    { Single-space the menu choices.                             }
 msgxy 255, 4 :                        { Center the next message on line 4.                         }
 $9 = &A& + "  " + ' TIMEOUT APPLICATIONS ' + "  " + &@& :
                                       { This is the menu title, which includes MouseText apples.   }
 msg $9 : msgxy Ø, 128 :               { Display the title and reset the message location.          }
 menu "Macro Construction" :           { These are the menu choices.                                }
 menu "SuperFonts" :
 menu "Spreadtools" :
 menu "Tools" :                        { Stores Calculator, DirecTree, etc.                         }
 menu "TO Application Makers" :        { Stores Glossary, Help Screens, etc.                        }
 menu "Backup/Archive" :               { Stores applications from DiskTools.                        }
 q = peek #exitflag :                  { Check how the user exited the menu.                        }
 ifnot q = Ø rpt : endif :             { If the user hasn't pressed anything, keep checking for a response.}
 poke #menuinc, 2 :                    { Reset menu spacing to double-spaced.                       }
 oa-Q : esc :                          { Go to the Main Menu.                                       }
 if z = Ø stop : endif :               { If the user press the Escape Key, stop.                    }
                                       { If the user made a choice...                               }
 $1 = "/AE1/AW.DJ/TO." :               { ...store the main part of the pathname in $1.              }
 if z = 1 $2 = "MACRO" : endif :       { If the user chose #1, store "MACRO" in $2.                  }
 if z = 2 $2 = "SF" : endif :          { If the user chose #2, store "SF" in $2...                   }
 if z = 3 $2 = "ST" : endif :          { ...and so on.                                              }
 if z = 4 $2 = "TOOLS" : endif :
 if z = 5 $2 = "MAKERS" : endif :
 if z = 6 $2 = "DTOOLS" : endif :
 $3 = $1 + $2 :                        { Concatenate $1 and $2 to store the complete pathname in $3. }
 $Ø = "Utilities" : oa-esc : find : rtn :  { Go to the TimeOut Utilities.                           }
 $Ø = "Add" : find : rtn :             { Select "Add applications"...                               }
 $Ø = "ProDOS" : find :                { ...from a ProDOS directory...                              }
 oa-rtn :                              { ...and choose to enter a pathname.                         }
 oa-y :                                { Erase any current pathname.                                }
 print $3 : rtn :                      { Enter the pathname and press Return.                       }
 $Ø = "Load" : find                    { Select "Load to memory"...                                 }
 >!                                    { ...and stop.                                               }
```

3. From then on, press <ba-T> when you want to add a new set of applications and choose one of the groups on the menu. Press the Escape Key if you change your mind and decide not to add any additional applications.

   The macro will navigate to the correct set of applications, create a new TimeOut menu, and add the applications in that directory. The macro will leave you at Option #2 in the TimeOut Utilities so you can select any applications that you want to load into memory. ("Adding" TimeOut applications tells AppleWorks where to find them. "Loading" an application into memory eliminates the need for disk access and speeds up the program. See any TimeOut manual for more information about these differences.)

Technical Details.

The macro in *Figure 1* demonstrates one way to use the <menu> commands in UltraMacros 3.x. I did not create any help screens for this menu; I leave that exercise to the reader.

The macro selects "Add applications" from the TimeOut Utilities Menu, highlights "ProDOS

A Note Regarding Ultra 4.0

The release of the Ultra 4.0 upgrade to UltraMacros will foster the development of new and powerful macros. But it will take some time for users to become comfortable with the new features Ultra 4.0 adds to UltraMacros. In addition, macros written specifically for Ultra 4.0 will not run with the earlier versions of UltraMacros.

As a result, **NAUG** will continue to publish UltraMacros 3.x-compatible macros until January 1993, by which time we will be able to judge the impact of Ultra 4.0. However, starting with next month's issue, we will tell Ultra 4.0 users how to customize the macros in our articles so they will run with the new version of UltraMacros.

Please send your UltraMacros 3.x and 4.x macros to **NAUG** for publication. We accept printed copies of your macros, although we appreciate macros that also come on disk. Please include your address, telephone number, and a sentence or two about yourself. Mail your work to: My Favorite Macro, **NAUG**, Box 87453, Canton, MI 48187.

Directory", and enters an <oa-Return>. The <oa-Return> lets the macro enter a pathname instead of having to navigate through the subdirectories. This is necessary because the macro does not "know" which directory is current.

You can add new groups of applications to the macro by creating a new directory, adding a new menu choice, and adding a new <if z = > statement to test for that new menu option.

[Keith Johnson is Associate Director of the Fleischmann Planetarium at the University of Nevada.

*A working copy of this macro appears on this month's **NAUG on Disk**, which costs $10 from NAUG. **NAUG on Disk** comes on a 3.5-inch disk. This macro requires AppleWorks 3.0 enhanced with UltraMacros 3.1.]*

Computer Virus Update

We are always alert for the latest computer virus. Here are some recently discovered strains and mutations:

George Bush Virus: Does not do anything, but you can't get rid of it until November.

Ted Kennedy Virus: Crashes your computer but denies it ever happened.

Anita Hill Virus: Lies dormant for ten years, then has no impact on your system despite its importance.

Warren Commission Virus: Does not let you open your files for 75 years.

Jerry Brown Virus: Blanks your screen and begins flashing an 800 number.

David Duke Virus: Makes your screen go completely white.

Congress Virus: Overdraws your disk space.

Pat Buchanan Virus: Shifts all output to the extreme right of the screen.

Paul Tsongas Virus: Pops up on December 25th and says, "I'm not Santa Claus".

Mario Cuomo Virus: Has difficulty deciding what to do to your system.

Dan Quayle Virus: Forces your computer to play golf games from 10AM to 4PM six days a week.

Bill Clinton Virus: This virus mutates from region to region throughout the country.

Richard Nixon Virus: Blanks your screen for 18-1/2 minutes. Although you can eliminate this virus, it always makes a comeback.

H. Ross Perot Virus: Appears ready to make significant changes to your system but then goes away without leaving a trace.

New Disks in the NAUG Library

Barrows Utilities - Disk 5

Roy Barrows fans: It's time to get your fifth disk filled with useful AppleWorks accessories developed by this prolific author of AppleWorks enhancements. Barrows Utilities - Disk 5 includes:

ADB.Verify: Checks the spelling of AppleWorks data base files.

File.Jump: Links up to four desktop files and lets you switch quickly between files with a single keypress.

Mini.Notes: A quick, easy-to-use utility that prepares and keeps track of short notes.

Rem.File: Quickly deletes files from your desktop without asking you to confirm the deletion.

Set.Marker: A quick and easy-to-use alternative to the AppleWorks word processor marker system. Limited to only five markers per document.

Super.Cell: Lets you capture, store, view, and use the contents of up to nine separate word processor lines, data base entries, and/or spreadsheet cells.

Verify: A menu-driven enhancement to the AppleWorks 3.0 spell checker that makes it easy to switch between and edit a custom dictionary, change your spell checker options, and capture a spelling list in a new word processor file.

Word Space: Substitutes a single space for two spaces between words in a word processor document.

The Barrows Utilities - Disk 5 includes both TimeOut and task file versions of each utility, word processor files with annotated copies of the macros, and documentation in an AppleWorks word processor file on the disk. The disk requires AppleWorks 3.0 enhanced with UltraMacros 3.1.

Hebrew Fonts Disk

The **NAUG** Public Domain Library now includes the Hebrew Fonts Disk, a collection of three Hebrew fonts and two keyboard maps prepared as Paint documents in AppleWorks GS.

The fonts are standard Apple IIGS fonts you can use with TimeOut SuperFonts, Publish It!, AppleWorks GS, and many other 8-bit and 16-bit applications. You can print the keyboard maps with AppleWorks GS or prepare your own maps with SuperFonts, Publish It!, or any other application that can use the fonts.

We would appreciate hearing from the **NAUG** member who submitted this disk; we want to give credit to the creator of these fonts.

ProDesk Plus

NAUG is now shipping version 2.1 of ProDesk Plus, a popular 8-bit program selector and collection of utilities for Apple IIc, IIc+, IIGS, and enhanced Apple IIe computers.

ProDesk lets you view text, AppleWorks word processor, high resolution and double high resolution files without the application used to create those documents and graphics. Utilities included with ProDesk let you create subdirectories, delete, rename, lock/unlock, copy, and find files. ProDesk displays the time on any Apple II equipped with a ProDOS-compatible clock and includes a built-in screen saver to protect against screen burn-in.

Version 2.1 of ProDesk includes an alarm clock, a pop-up help screen, and lets you use a mouse on all mouse-equipped systems.

ProDesk Plus is shareware; you send the author, Dr. Helge Malmgren, $20 if you use the programs on the disk. Registered ProDesk users do not have to submit an additional shareware payment when they upgrade to version 2.1.

Telecommunicators can contact Dr. Malmgren via Internet or America Online at "andysweden@proscat.cts.com".

UtilityLaunch

UtilityLaunch is a powerful Apple IIGS program selector/launcher that lets you launch any program from either a standard file selection dialog box or from an easily configured menu presented in a win-

dow on the desktop. The program supports up to 50 launch selection menus containing either icons or regular buttons that you configure to your own applications by pointing and clicking on the desired programs.

UtilityLaunch lets you change the operating speed of your TransWarp GS or ZipGS-equipped computer, color, and slot configurations for any program you launch. Finally, launching programs is much faster with UtilityLaunch than with the GS/OS Finder.

UtilityLaunch comes on a 3.5-inch disk and requires an Apple IIGS running under GS/OS 5.0.4 or later. The program is shareware; you send the author $10 after you order the disk from **NAUG**.

How to Get Disks

Unless otherwise noted, all disks are available in both 5.25-inch ($4) and 3.5-inch ($6) format, plus $2 s/h *per order*. Order from: Public Domain Library, **NAUG**, Box 87453, Canton, Michigan 48187; (313) 454-1115; Fax: (313) 454-1965. **NAUG** accepts Visa and MasterCard. All **NAUG** disks (except system disks provided by Apple Computer) are also available for downloading from **NAUG**'s electronic bulletin board (the Electronic Forum), and from the **NAUG** areas on CompuServe, America Online, and GEnie.

September Update to the Electronic Index

Enter the default values for these categories:
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Letters to NAUG • 2 • Apple IIc Printing Problem • Summers, Stephen • Apple IIc; printing; ImageWriter II; printers

Letters to NAUG • 2 • A Hard Disk Option • Macintyre, Jeffrey • Apple IIgs; RAM disks; TimeOut; UltraMacros

Letters to NAUG • 3 • BASIC Programs and System 6 • Roemer, William • BASIC; System 6; Apple IIgs; bugs

Letters to NAUG • 3 • Member Prefers TimeOut Word Count • Tubbs, Marvin • TimeOut; Word Count; spelling checkers; disk notcher

Letters to NAUG • 3 • Reorganizing Data Base Categories • Powell, Clifford • data bases; layouts

Claris Technical Notes • 4 • Claris Corporation Answers Your AppleWorks Questions • Claris • AppleWorks; disk drives; spelling checkers; file transfers; spreadsheets; DIF; AppleWorks 3.0; Apple IIGS; bugs; 3.5-inch disk drives; 5.25-inch disk drives; logarithms; dictionaries

Word Processor Tips • 5 • How to Enhance Your Documents with MouseText – Part One • Stephansky, F. David; Williams, Warren S. • printing; printing effects; MouseText; AppleWorks 3.0; ImageWriter

Word Processor Tips • 6 • How to Configure AppleWorks 3.0 • Stephansky, F. David; Williams, Warren S. • printing; printing effects; MouseText; AppleWorks 3.0; ImageWriter

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My Favorite Template • 20 • Amortization Tables that Use Less Memory • Hecker, Stan • templates; finance

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General Interest • 32 • Used Computers • N/A • humor

New Keywords: AppleShare; clip-art; Closing the Gap; disk notcher; EtherNet; Hebrew Fonts Disk; OmniPrint; logarithms; Picture Icon X-CHANGE; Platinum Paint; Talk is Cheap; UtilityLaunch

Get Help with Telecommunications

by Nanette Luoma

How to Use this List

Use this month's list to find help with telecommunications. To the left of each volunteer's name are numbers indicating the enhancements that consultant supports.

1 = NAUG's BBS	7 = EtherNet
2 = America Online	8 = Modems
3 = CompuServe	9 = Networks - Other
4 = GEnie	10 = ProTerm
5 = AppleShare	11 = Shrink-It
6 = AppleTalk	12 = Talk is Cheap

		City	Home	Work
Arizona				
10	Clay Evitts	Tucson	602-885-9789	602-296-5491
California				
2,4,8,10,11	James P. Davis	Hayward	510-489-7024	
1,4,8	Terence Higgins	Newark	510-745-7884	415-593-2500
2	Alan E. Kahn	San Anselmo	415-457-9827	
Colorado				
1-3,8,10,11	Lyle Graff	Littleton	303-794-5970	303-977-4557
Florida				
1,10	Ann Bennett	Orlando	407-843-0545	407-647-6366
1,2,4,8,10-12	Jeff Strichard	Ft. Lauderdale	305-587-9590	305-977-4991
Georgia				
4,8,10,11	Rick White	Stone Mountain	404-469-0521	404-616-3350
Illinois				
10	Charles Jonaitis	Wilmette	708-256-7871	
Indiana				
3,6	Donald Corson	Memphis	812-256-3517	502-473-3036
1,2,8,10,11	Jack Countryman	Greensburg	812-663-4998	
Louisiana				
2-4,9,11	Charles Fryling, Jr.	Baton Rouge	504-766-3120	504-388-1473
Maryland				
10	Gary Hayman	Greenbelt	301-345-3230	
4,8	Michael Spurrier	Baltimore	410-298-0263	410-396-0775
Michigan				
1,8,10-12	James T. Clark	Wyoming	616-243-8361	
1,3,8,9	Sharon A. McCreery	Kalamazoo	616-344-1201	
Montana				
2,8,11,12	Steve Bernbaum	Shepherd	406-373-6393	
Nevada				
2,3,8,11	Keith Johnson	Sparks	702-626-2543	702-784-4812
New Hampshire				
2,3,6,8-10	Andy Albert	Bethlehem		603-823-7411
New Jersey				
1-4,10,11	Pete Crosta	Nutley	201-667-6369	201-677-4080
New York				
2,8,11	Ira M. Garvin	Oakdale	516-563-1253	516-489-7620
9	Amy S. Perry	Arkport	607-295-7932	607-295-7471
3,8,11	Gary C. Walters	Hamburg	716-941-5442	
Ohio				
3,8,10,11	Jason Chao	Cleveland Heights	216-321-5451	215-844-3791
1,4,10,11	Tom Gwilt	Conneaut	216-593-2216	
Oregon				
2,5,6,8,9,11	Jim Emig	Portland	503-771-1916	503-280-5676
2,4,8,10,11	Richard Millus	Medford	503-772-9787	
Pennsylvania				
3	Hal Shapiro	Eagleville	215-630-8936	
Tennessee				
4	Joel Goldman	Nashville	615-352-3617	615-352-8676
Texas				
8	B.H. Hinshaw, Jr.	Arlington	817-274-2740	214-670-2119
2-4,8,11,12	Ramon F. Merlin	San Antonio	512-496-5331	
8,11,12	Bud Simrin	Fort Worth	817-246-0859	
Vermont				
11	Douglas C. Corey	Middlebury	802-388-6209	802-388-4021
1,3,4,11	John Nunnikhoven	Weston	802-824-6286	
Virginia				
10,11	Wayne Sheffield	Virginia Beach	804-340-6799	
Washington				
2-4,8,10,11	Kent Hayden	Tacoma	206-566-9467	206-931-2669
Wisconsin				
2-4,8,11	Peter W. Lee	Milwaukee	414-344-6807	414-229-6180
4,8,11	Scott Peterson	Madison	608-246-0762	
Australia				
1,8,11	D.E. Bruce	Caringbah, NSW	612-527-4731	612-524-3859
Brazil				
8	Paulo Chachamovich	Porto Alegre	051-226-4358	051-225-4778
Canada				
6	Jim Low	Toronto, Ont.	416-690-3943	
2	Trudy Young	Toronto, Ont.		416-449-9400
England				
3,8,11,12	Andrew C. Letchford	Crownhill, Ply.	0752-770-178	
New Zealand				
11	Henry Harrison	St. Lukes, Auk.	9 8469 419	9 4861 491

Members Helping Members Update

NAUG recently updated its Members Helping Members directory to reflect your responses to the Members Helping Members form that appeared in the June 1992 issue of the ***AppleWorks Forum.*** As a part of this process, we purged the list of volunteers who did not update their data.

Members Helping Members volunteers provide a valuable service for the AppleWorks community. **NAUG** members willing to serve as volunteers should submit the form included in the June issue of the newsletter.

NAUG Membership

Name _____

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_____

City _____ State _____

Zip _____ Country _____

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NAUG shares members' addresses with other users groups and selected vendors. If you do not want to receive mail from these agencies, check here: ☐

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General Interest

Used Computers

After years of searching, I finally discovered what you can do with a five year old computer.

Turn it into a birdhouse.

It is an easy process and requires just a few tools. Just lift off the cover and scrape out all that electronic junk with a screwdriver. Then mount the thing on a pole and watch the birds fly from near and far to visit their new high-tech home.

This system works particularly well with IBMs and Apple IIs because the lids lift off easily. To turn a black and white Macintosh into a bird house, you have to smash the screen with a hammer and yank out the guts of the machine through the front. It's a real hassle.

[This article originally appeared in the Sandy Apple Press.]

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